ccGEN2 AUTOMATION SYSTEM 2

Owner's Manual

WC-1

Wireless Controller

URC™

Control the Experience.

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Introduction

Thank you for purchasing the WC-1 Wireless Controller. The WC-1 requires a ccGEN2 CP-1 Central Processor and compatible interfaces, programmed by a Custom Professional, to control your home. Communicating over the network using Wi-Fi, or a wired LAN connection, the WC-1 receives commands from the Central Processor and relays them, via IR, to four or more devices. Controlling your home is simple with the WC-1.

Features and Benefits

- **IR Flasher Outputs**
  Control up to four components without ever getting up from your seat.
- **Front IR Blaster**
  Control IR devices where an IR emitter cannot reach the device's location, like a TV over a fireplace.
- **Network Connectivity**
  Receives commands over the network from an CP-1 Central Processor and then sends IR signals to control your components.
- **Compact Size**
  The small size of the WC-1 allows it to easily fit behind devices or into places where a traditional base station would not.

Parts Guide

The WC-1 Wireless Controller includes:

1 - WC-1 Wireless Controller
1 - AC Power Adapter
4 - Mounting Screws
1 - Mounting Plate
4 - IR Emitters (3.5mm plugs)
1 - Owner's Manual

Front, Rear and Bottom Panel Descriptions

Front Panel

The front panel consists of three indicator lights and an IR Blaster.

Power LED: The Power LED illuminates when the unit is powered.

Status LED: When the WC-1 powers up, both the Status and Data LEDs blink. When a network connection is made, the Status LED color will vary depending upon its "connected state":

- Good wireless signal: **Green**
- Poor wireless signal: **Orange**
- No Connection: **OFF**

Data LED: The Data LED flashes as the WC-1 transmits IR data.

IR Blaster: The front IR Blaster sends IR signals to one or more components placed in direct line of sight.

Rear Panel

The rear panel ports are:

DC 12V Power: Plug in the included 12V DC 1A power supply.

IR Outputs (Ports 1-4): Connect an included 3.5mm IR emitter to each of the four IR outputs. Adjust the IR output signal strength for port 1 using the attenuator located on the bottom of the unit.

LAN Connection: If a wired connection is needed, this port uses a standard Ethernet (RJ-45) plug to communicate via the local area network.

Bottom Panel

The bottom panel consists of:

FCC ID : OZ5URCMRX4IR
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1)This device may not cause harmful interference; and (2) This device must accept any interference received including interference that may cause undesired operation
• Manufactured by
Ohsung Electronics co., Ltd.
• Batch/Serial no.:
• Frequency band : 2.4GHz
• Rating : 12V ⎓ 1.0A
• Type No. : WC-1
CE 2200
MADE IN KOREA
RESET
– (1) +

Reset Button: The Reset button is located on the bottom of the unit, and requires a stylus, or paper clip to press the button. Pressing the Reset button will cycle the WC-1's power. (Unplugging the WC-1's power cable and then plugging it back in, also performs the same function.)

Pressing and holding the Reset button for 15 seconds, will factory default the WC-1, and return the unit back to its original unprogrammed state.

Mac Address Sticker: The MAC Address (12 numbers) identifies this wireless device when connected to the network.

IR Attenuator: Use the included adjustment tool (or a flathead screwdriver) to increase or decrease the intensity level for IR output #1.

Network Installation

WARNING!! Before proceeding, a Custom Professional is required to install and configure your WC-1.

The WC-1 is a network base station that allows full control of your components with the use of ccGEN2 Central Processor and compatible interfaces. Once installed on the network, and a button is pressed on an interface, a command is transferred over the customer's network to the CP-1 Central Processor, which in turn is routed to the WC-1 and then sends IR commands to the components you specify.

1. Connect the WC-1 to the network (wired or wireless).

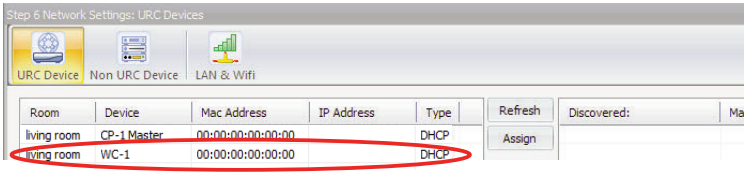
2. Connect your laptop to the **same network** as the WC-1.

Network Discovery & Download

WARNING!! Before proceeding, a Custom Professional is required to install and configure your WC-1.

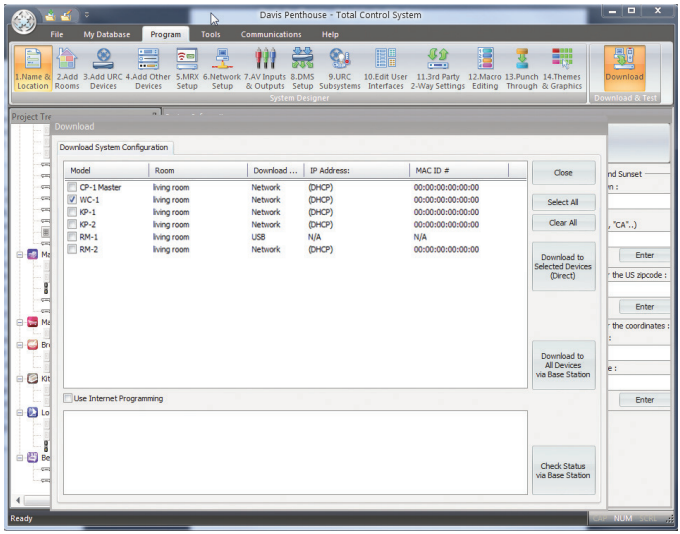
1. Open a new or current project. In **Step 3: Add URC Devices**, add an **WC-1** to a room included in your project which represents the physical location of the unit.

2. In **Step 6: Network Setup,** discover the WC-1 using the same process used for other Total Control network products in the project.



3. Press the **Download** button within the Program menu.

4. Make sure to check the WC-1 checkbox, then press the **Download to Selected Devices (Direct)** button.



Optimizing IR Flasher Levels

Test a few commands for each component before fixing the flasher in place on the front panel of a device.

Since TiVo, Satellite Receivers and Cable Boxes are all extremely sensitive to IR overload or saturation, you should test them thoroughly. Put up the on screen guide and test the navigation arrows. If operation is inconsistent or sluggish, lower the IR line output for port 1 only and/or reposition the flasher.

If you still have sluggish operation, make sure IR routing is used rather than ALL. When IR commands are sent to all the flashers in a cabinet, you can have difficulty adjusting the IR Output. Program ccGEN2 to send IR commands only via a specific IR port (1-4), then readjust the IR Line Output level.

Connect an IR emitter to each IR output and run the emitter wire to the IR receiver of each component. DO NOT STICK the emitter in place yet. Adjust the LEVEL on IR port 1 or adjust the emitter PLACEMENT for ports 2-4 until the component responds to IR commands then stick the emitter in place.

IR Outputs: These ports can be as discrete, 'routed' outputs that only send IR commands to the specific component that each emitter is attached. This assures accurate control in that a given component's commands are routed only to its dedicated IR output and emitter, preventing IR oversaturation from multiple emitters flashing at the same time.

POLARITY: Tip=IR data, Base=GND.

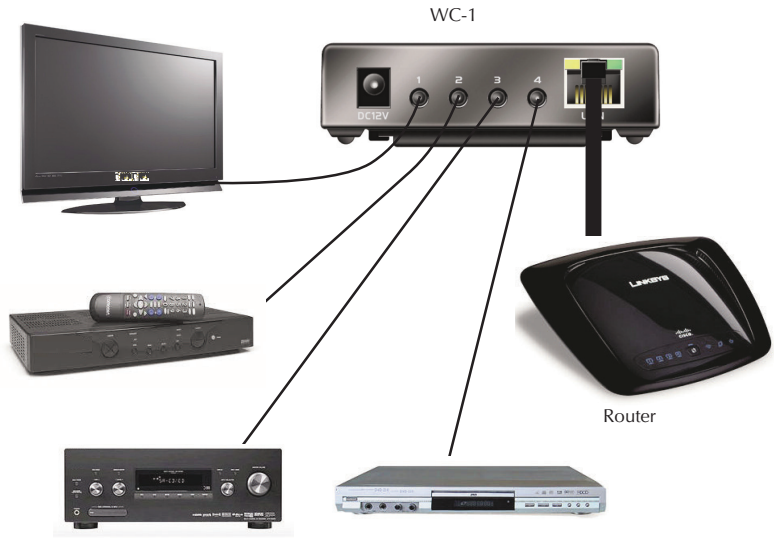
Overview of IR Routing

There are several considerations to take into account when you are installing an WC-1 to control an array of components:

1. When connecting a flasher from the WC-1 to your component make sure to notate the IR outputs being used. Program the same port designations into the ccGEN2 program.

2. Assigning each component with its own individualized port number helps to control multiple components eliminating interference.

3. Identical components must receive IR commands ONLY from a dedicated flasher affixed to its front panel or a rear panel direct IR input.



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1. Limited Warranty and Disclaimers
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In the event of any warranty claim, URC will, at its sole option, repair the URC equipment using new or comparable rebuilt parts, or exchange the URC equipment for new or rebuilt equipment. **In the event of a defect, these are the end user's exclusive remedies.**

All the URC equipment returned for service, exchange or repair require an RGA number. To obtain an RGA number, you must complete a Return Request Form which you may obtain by calling (914) 835-4484 or contacting URC at returnrequest@universalremote.com. To obtain warranty service, end user must deliver the URC equipment, freight prepaid, in its original packaging or packaging affording adequate protection to URC at 420 Columbus Avenue, Valhalla, NY 10595. It is end user's responsibility to backup any macro programming, artwork, software or other materials that may have been programmed into the unit. It is likely that such data, software, or other materials will be lost during service and URC will not be responsible for any such damage or loss. A dated purchase receipt, bill of sale, installation contract or other verifiable proof of purchase is required. For the URC equipment support and other important information, please visit URC's website available at www.universalremote.com or call the Customer Service Center at (914) 835-4484.

This limited warranty only covers the URC equipment issues caused by defects in material or workmanship during ordinary consumer use. It does not cover product issues caused by any other reason, including but not limited to product issues due to commercial use, acts of God, third-party installation, misuse, limitations of technology, or modification of or to any part of the URC equipment. This limited warranty does not cover the URC equipment sold as used, as is, refurbished, so called "B stock" or consumables (such as batteries). This limited warranty is invalid if the factory applied serial number has been altered or removed from the URC equipment. **This limited warranty specifically excludes the URC equipment sold by unauthorized resellers.** With the exception of URC's IR-only, broad-based consumer remotes, none of URC's PC programmable remotes or any of our ccGEN2™ whole-house

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IN NO EVENT SHALL URC BE LIABLE FOR ANY EVENTS BEYOND ITS CONTROL, INCLUDING ANY INSTANCE OF FORCE MAJEURE.
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SOME STATES OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO END USER. THIS LIMITED WARRANTY GIVES END USER SPECIFIC LEGAL RIGHTS AND END USER MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE OR JURISDICTION TO JURISDICTION.

End User Agreement

The terms and conditions of the End User Agreement is available at www.universalremote.com/eua.php shall apply.

Specifications

CPU : ARM 32-bit Cortex-M3(120MHz)

Memory : 128Kbyte SRAM, 768Kbyte Flash

Macro Capability : Up to 255 steps each

IR Range(Line of Sight via Infrared) : 30 to 50 feet, depending on the environment

RF Range(radio frequency) : 50 to 100 feet, depending upon the environment

Wi-Fi : IEEE 802.11 b/g/n

Weight : 3.0 oz

Size : 3.74″ X 2.7″ X 1.1″

Power : 12V DC 1A

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning!

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Note : The manufacturer is not responsible for any Radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

FCC Caution

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment.

Federal Communication Commission (FCC) Radiation Exposure Statement

The device and the antenna for this device must be installed to ensure a minimum separation distance of 20 cm more from a person's body. Other operating configurations should be avoided.

Declaration of Conformity

Company Name	:	OH SUNG ELECTRONICS CO., LTD.
Company Address	:	#181 GONG DAN-DONG, GUMI, GYEONG BUK, REPUBLIC OF KOREA
Contact Information	:	Phone: +82-54-468-7281, Fax: +82-54-461-8368
Brand Name	:	UNIVERSAL remote control
Product Name	:	Wireless Controller
Model Name	:	WC-1

This product herewith complies with the requirements of EMC Directive (2004/108/EC) and R&TTE Directive(1995/5/EC) issued by the Commission of the European Community

Compliance with these directives implies conformity to the following European Community

- EMC Directive
  - EN 55022 (2010)
  - EN 55024 (2010)
  - EN 61000-3-2 (2006) + A1 (2009) + A2 (2009)
  - EN 61000-3-3 (2008)
- R&TTE Directive
  - EN 60950-1 (2006) + A11 (2009) + A1 (2010) + A12 (2011)
  - ETSI EN 301 489-1 V1.9.2 (2011)
  - ETSI EN 301 489-17 V2.1.1 (2009)
  - ETSI EN 300 328 V1.7.1 (2006), EN 50385 (2002)

List of test reports and/or certificate verified compliance with the standards above

- EMC Directive
  - Report No.
  - Testing Laboratory : Gumi College EMC Center
- R&TTE Directive
  - Certificate No.
  - Certificate Body : SIEMIC (No. 2200)

Date of issue : May 30, 2012

Name and signature of authorized person : Quality Assurance Team

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